AUTHOR INDEX

Allen, J. G. 1

Birnie, G. G. 439
Bloxham, D. P. 1
Broder, S. 329
Brodie, M. J. 439
Burge, S. M. 75
Bywater, R. A. R. 401

Carrasco, L. 171
Castrillo, J. L. 171
Chapman, I 373

Ferguson, J. 123
Fisher, P. H. 349

Grem, J. L. 349

Hönigsmann, H. 67
Howden, C. W. 439
Hsiung, G. D. 287

Johnson, B. E. 123
Jones, D. H. 91

Kirkpatrick, D. L. 383

Landry, M. L. 287
Lazarus, V. N. 157
Lippman, S. M. 107
Lowe, N. J. 157

MacKie, R. M. 137
Marsden, J. R. 55
Matt, L. 157
Mayo, D. R. 287
Meyskens, F. L., Jr 107
Morley, J. 373

Öberg, B. 213
Otero, M. J. 171

Roenigk, H. H., Jr 145

Saurat, J.-H. 45
Siegenthaler, G 45
Smith, D. 373

Taylor, G. S. 401
Teelmann, K. 29

White, S. I. 137
Wolff, K. 67

Yarchoan, R. 329

SUBJECT INDEX

Acyclovir 311
Adenine arabinoside 310
Adenosine triphosphate 406, 407
Acitretin
  pharmacokinetics 159–61
  structure 17
Acne
  appearance 92, 93
  13-*cis*-retinoic acid 91–104, 129
  clinical efficacy 92–95
  erythromycin 97, 98
  pilosebaceous duct obstruction 101, 102
  remission rates 95, 96
  sebum excretion and retinoids 98–100
  skin microflora 100, 101
Adverse reactions
  AZT 339
  phosphonoformate 240–42, 258, 259
  RePUVA 70, 71
  retinoids 87
  synthetic retinoids 165, 166
AIDS
  anti-retroviral therapy 329–44
    approaches 330–33
  CMV infection and phosphonoformate 269–72
Airway smooth muscle
  hyperactivity 375–377, 379
  platelet activating factor 373–80
Amantadine 309
γ-Aminobutyric acid (GABA) 407–409
Antipyrine clearance and cirrhosis 467
Antiviral drugs 309–13
  sensitivity testing 313, 314
Arotinoid ethyl ester 161, 162
AZT
  clinical activity in AIDS 338–43
  HIV-induced neurologic dysfunction 341, 342
  structure 334
  toxicity 339

Bioavailability 441
Bone
  retinoid therapy 137–42
  retinoid toxicity 35, 36

Calcitonin gene-related peptide 409, 410
Carcinogenesis, retinoids 40
Cellular retinoic acid-binding protein (CRABP)
  skin assay 48–50
  skin disease 51, 52
Cholecystokinin 410
Cirrhosis
  drug metabolism 447–49, 460, 462
  midazolam, plasma concentration 449
Clearance 442, 443
  intrinsic 443, 444
Cytopathic effects, virus 292
Cytotoxic agents, hypoxic tumour cell 383–96

Darier's disease
  appearance 78–80
  retinoid effects 81
Dideoxynucleosides 329–46
  anabolic phosphorylation 337, 338
  analogues 333–36
  HIV activity 334, 335
  mechanisms of action 336
  structures 334
  types 343, 344
Dipyridamole
  and antimetabolite toxicity 360–62
  antineoplastic agent modulator 364, 365
  cancer cell heterogeneity 366
  5-fluorouracil anticancer enhancement 349–67
  pharmacology in man 363
  platelet antiaggregation 362
Drug metabolism
  dose and liver disease 450–59
  in vitro 463–65
  in vitro 446, 447
  liver disease 439–69
  parameters in liver disease 450–59
  protein binding 444, 445

ELISA, viral antigens 304, 305
Enteric nervous system 401
  peptides 402
Epidermal differentiation 75, 76
Epidermis, retinoid effects 34, 77, 78
Etretinate
  absorption spectrum 128
  bone effects 140–42
  clinical studies 128, 129, 159, 160
  concentration–time profiles 18
  dosimetry 160
  lipid metabolism 59, 60
  liver effects 151–53
  metabolism 20
  metabolites 17
  minimal erythema dose 130
  pharmacokinetics 17–22, 159
  PUVA combination 162, 163
  structure 17
  therapeutic index 16
  UVB combination 163, 164

5-Fluorouracil (5-FU)
  anticancer and dipyridamole 349–68
  dipyridamole interaction 350
    cell growth 352, 353
    metabolism 356
    metabolite efflux 356, 357
    nucleoside transport 353–55
    toxicity modulation 358
Foscarnet *see* phosphonoformate

Galanin 411
Gastrin-releasing peptide 411, 412
Gilbert's syndrome, drug metabolism 462, 463

Hepatitis, drug, metabolism 461, 462
5-Hydroxytryptamine 412, 413
Hyperlipidaemia, mechanisms of retinoid 60–62
  management 63
Hypervitaminosis A 145, 146

Ichthyosis
  features of congenital 82, 83
  retinoid, actions 86, 87
  X-linked 85
Immunofluorescene, viral antigen 301, 302
Immunoperoxidase, viral antigen 320–304
Iododeoxyuridine 309–16

Jaundice, drug metabolism 462

Keratinization disorders 83–85

Lipid metabolism
  normal 55
  and retinoid therapy 55–63
Lipoproteins
  metabolism, scheme 57
  normal, features 56
Liver
  biopsy, retinoid therapy 148–152
  retinoid metabolism 146
  retinoid toxicity 37, 38
  toxicity, vitamin A 145–53
Liver disease
  classification 440
  diagnosis 439
  drug pharmacokinetics 450–59
  modeling 445
  pathology 440
  shunting 445
Liver function tests
  aminopyrine 467, 468
  antipyrine 466, 467
  indocyanine green 465, 466

Melanoma, retinoids 115, 116
Membrane leakiness
  molecule entry 178–81
  molecule exit 181, 182
  transport modification 182
  virus infection 177–89
    early 177–82
    late 182–89
Membrane modifications
  cell killing 92
  cell metabolism 189–91
  cell transformation 193, 194
  RNA synthesis 191, 192
  and virus infection 189–96
Membrane permeability
  agents 196–203
  ATP 202
  ionic concentrations 199–201
  ionophores 197–99
  lysolethicin 201
  measurement 178, 179
  picornavirus 184–86
  thionins 203
  togaviruses 186, 187
  viral entry 194, 195
  viral macromolecules 195, 196
  viral types and effects 183
  virus infection 171–204
    DNA 188, 189
    modification 172
    RNA 184–88
Meptazinol in liver disease 460
Misonidazole 392
Monensin structure 198
Mutagenesis and retinoids 40
Mycosis fungoides, retinoids 116–18

Neurokinins 413–15
Neuropeptide Y 415–17
Neurotensin 417, 418
Neurotransmitters, autonomic 401–26
  novel 405–26
  putative 406
  release 403, 404
Nigericin structures 198
Nitroimidazole analogues 391–96
  structure 392–95
Nucleosides, membrane transport 351, 352

Opioid peptides 418–20

Peptide histidine isoleucine 422–26
Pharmacokinetics in liver disease 441–46
Phosphonoformate
  animal treatment 242–52
    efficiency 244–49
  antiviral effects 277
  cellular toxicity 240–42
  chemistry 215, 216
  clinical studies 259–76
  CMV infection 265–69
    AIDS patients 269–72
    bone marrow transplant 265, 268
    clinical effects 266
    renal transplants 265, 267
  CMV sensitivity 227
  CMV synthesis 225
  DNAase 220
  DNA polymerase 219, 220
    inhibition model 234, 235
    interactions 236
  drug combinations 252–55
    HIV replication 255
  enzymes inhibited 216–24
    structure–activity 220–24
  fibroblast uptake 241, 242
  half-life, blood 256
  hepatitis B virus infection 272, 274
  herpes, cutaneous in animals 243–49
  herpes, genital in animals 249, 250
  herpes, genital, clinical studies 260–65
  herpes, keratitis 250, 251
  herpes, labial, clinical studies 259, 260
  herpes, viral excretion 263
  HIV infection 272, 273
  HIV isolation 273
  HIV replication 228, 229, 236, 237

HSV-1 238, 239
mechanisms of action 230–40
cell cultures 237–40
cell-free system 230–37
mechanism of inhibition 232, 233
parenteral, safety 275, 276
pharmacokinetics 255–58
plasma clearance 257
polymerase activities 222
resistance 252, 253
reverse transcriptions 218, 219
time course 236, 237
RNAase 220
RNA polymerases 217, 218
structure 215
toxicology 258, 259
virus multiplication 224–29
cell culture 226
Photohaemolysis, UVA and retinoids 131, 132
Photosensitivity
drug-induced 123
retinoid-induced 127, 128
Photosensitization 123
drugs 125
mechanisms 125–27
retinoids 124
Photosensitizers 124, 125
Phototoxicity, cutaneous 127
Platelet activating factor
and airway smooth muscle 373–80
bronchospasm 374, 375, 378
cough 378
vascular permeability 377, 378
Protein kinase C, retinoid modulation 107
Psoriasis therapy 67–72 *see also* RePUVA
new retinoids 157–66
retinoid actions 157
Psoriatic arthritis, retinoids 164, 165
Pyrimidine synthesis, salvage pathways 350, 351
Pyrophosphate analogues, polymerase inhibition 222, 223

Quinone bioreductive alkylating agents 383–91
mitomycin C 389
structures 384–86, 388–91

Radioimmunoassay (RIA), viral antigen 306
RePUVA (retinoid and photochemotherapy) 67–72
mechanisms of action 71
principles 67, 68
protocols 68–70
psoriasis 162, 163
results 68, 69
side effects 70, 71
Resistance, phosphonoformate 252, 253
Retinaldehyde 3–6
Retinoic acid, all-*trans*- 6–9
mechanism of action 13–16
metabolism, scheme 7
pharmacokinetics 8, 9
utriculus diameter 14
Retinoic acid, *cis* (isotretinoin) 9–13
acne 91–104
blood levels 11, 13
bone effects 139, 140
lipid metabolism 58, 59
mechanism of action 13–16
metabolism 12
utriculus diameter 14
Retinoid-binding proteins 45–53 *see also* cellular retinoic acid binding
binding affinities 50
oral mucosa 48, 49
PAGE assay 48
skin 47–49
Retinoids
biological efficacy 22
carriers 45–53
cutaneous malignancies 107–19
mechanism of action 29, 31
new, synthetic 158
pharmacology 1–23
photosensitivity 123–33
skin neoplasia 114
skin preneoplasia 110–13
structures 30, 46
target organ toxicity 32–38
therapy and lipid metabolism 55–63
third generation 22, 23
tolerance and dose 31, 32
toxicology 29–40
Retinol 1–3
formula 2
Ribavirin 311

Skeletal hyperostosis 138, 139
Skin
carcinogenesis 108, 109
microflora and acne therapy 100, 101
retinoid toxicity 34, 77, 78
Skin cancer
basal cell 113
preneoplasia and retinoids 110–13
prevention 109
squamous cell 113
Somatostatin 420–22
Specimen collection and transport, virus 289, 290

Teratogenesis, retinoids 38–40
Toxicity
retinoids 29–40
synthetic retinoids 165, 166
Trifluorothymidine 310

Vasoactive intestinal polypeptide 422–26
Viral diagnosis
antigen detection 301–306
cytopathic effects 292, 293
importance 314–16
methods 287–316
rapid 300–309
specimens and disease 289
Viral genome detection 306–9
Virus
cell entry modes 173–77
cytopathic effects 193
endocytosis 174
HIV replication stages 331
and membrane permeability 171–204
Virus identification
microscopy 298
monoclonal antibodies 295
restriction endonuclease 297, 298
RNA genome analysis 296

Virus-induced cellular changes 290, 291
  Virus isolation 290–92
  cultivation 294, 295
  HIV 295
  specimen processing 293
Virus multiplication, phosphonoformate 224–29
Virus shapes, RNA and DNA 298–300
Vitamin A
  anticancer effects 107
  and bone 137, 138
  liver storage 145, 146
  liver toxicity 145–53
  metabolism scheme 4
  skin cancer 109

Reproduced with the permission of Pergamon Press Inc., by University Microfilms Inc. Duplication or resale without permission is prohibited.